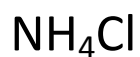
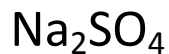


# Chemistry Exam Study Guide

Name the following compounds:



Mole Conversions:

Convert 76 grams of NaCl to moles

Convert 9 moles of Carbon to grams

Convert 3 moles of Iron to particles

Convert  $6.8 \times 10^{24}$  particles of Argon to moles

You need to create a sugar ( $\text{C}_6\text{H}_{12}\text{O}_6$ ) solution that is 2.800 L in volume with a concentration of 0.800M. How much sugar do you need to add to the solution? (molar mass of sugar is 180 grams)

Calculate the following using the proper number of sig figs:

$$19.2 \times 7$$

$$5.448 \times 4$$

$$12000 \times 43.8$$

$$60 \times 12.22$$

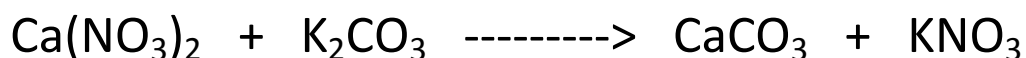
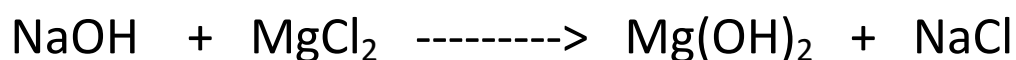
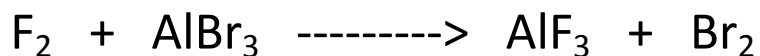
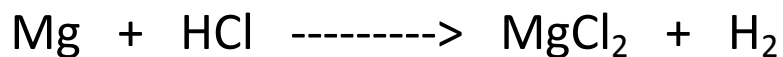
$$5.454 - 4.3$$

$$16.8 + 32.87$$

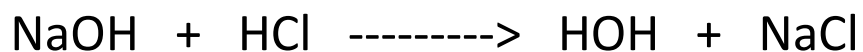
$$19 - 8.88$$

$$12.65 + 2.1$$

Balance the following chemical equations:



Calculate the pH of a solution with  $[\text{H}^+]$  of 0.0000500M:

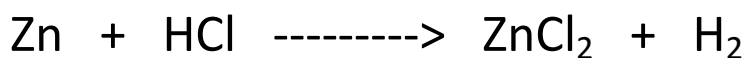
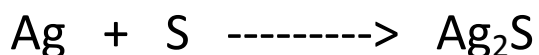
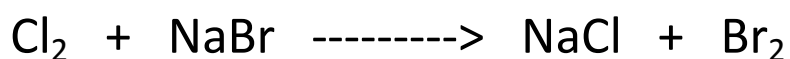
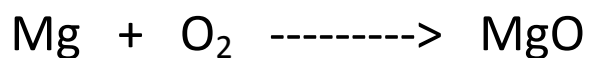


You titrate 25.0 mL of acid with 34.44 mL of base. The concentration of the base is 0.150M. What is the concentration of the acid?

Oxidation is the process of \_\_\_\_\_

Reduction is the process of \_\_\_\_\_

Balance each equation and determine which element was oxidized and which was reduced:



Determine the charge for each Nitrogen in the following compounds:

